

A PILOT AIR APPARATUS FOR A COMBUSTOR OF GAS TURBINE

ABSTRACT OF THE DISCLOSURE

A pilot air system for a combustor of a gas turbine including: a pilot air compressor having inlet connectable to in to a main passageway, wherein the main passageway receives compressed air from a compressor for the gas turbine; a pilot air platform positioned adjacent to the combustor of the gas turbine, wherein the pilot air compressor is positioned on the platform; an inline throttling valve coupled to the first main passageway; a by-pass passageway for the pilot air, proximate to the platform, and arranged in parallel to the main passageway and compressor, wherein the by-pass passageway receives pilot air from the main passageway downstream of the pilot air compressor and passes a portion of the compressed pilot air to the main passageway upstream of the pilot air compressor; a by-pass throttling valve inline with the by-pass passageway to meter pilot air flowing through the by-pass passageway, and the main passageway having an outlet connectable to the combustor.